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Mineralogical Chemistry.

Eukairite from Argentine. By R. OTTO (*Ber.*, **23**, 1039—1041). —The author has analysed a mineral obtained from Rioja, in the Argentine Republic, and finds it to be identical with eukairite, which occurs in small quantities in Småland, Sweden. The analysis showed that the mineral contains an equal number of atoms of silver, copper, and selenium, and agreed to a certain extent with Berzelius' analysis of the Swedish mineral. F. S. K.

Chemical Constitution of Talc. By F. W. CLARKE and E. A. SCHNEIDER (*Ber.*, **23**, 1537—1540).—Talc has usually been regarded as a magnesium hydrogen metasilicate, $H_2Mg_3(SiO_3)_4$, but lately Groth

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has proposed to regard it as a basic pyrosilicate, $Mg(Si_2O_5)_2(MgOH)_2$. The authors think Groth's formula incorrect because talc is scarcely attacked by hydrochloric acid; when heated for 15 hours at 400° in a current of hydrogen chloride, only 0·23 per cent. of magnesia is converted into chloride, and when digested with aqueous hydrochloric acid of sp. gr. 1·14 for 32 days, only 4 per cent. is converted. But minerals which contain the group $—Mg·OH$ are easily decomposed by hydrochloric acid.

Further, if Groth's formula is correct, the molecule of talc should not be decomposed when heated, but should simply lose a molecule of water between the two (MgOH) groups. According to the usual formula, the following decomposition should take place :—

$$H_2Mg_3(SiO_3)_4 = H_2O + SiO_2 + 3MgSiO_3;$$

and, as a matter of fact, it is found that, after talc has been heated for half an hour over the blowpipe, it loses one fourth of its silica when boiled with aqueous soda, although before ignition it is unattacked by this agent.

C. F. B.